Color infrared photograph assembled by the Ontario Ministry of the Environment from photos supplied by Environment Canada's remote sensing unit show a panorama of the Metro Toronto waterfront during spring runoff. The white plumes off the river mouths show silt picked up by fast-flowing Don and Humber Rivers washing into Lake Ontario. Colors are produced by the color infra-red film and do not necessarily match colors as detected by the eye.

ENVIRONMENT ONTARIO LEGACY

VOL 7, NO. 2 MAY 1978

Mobile air monitor world's most capable

With the purchase of the mobile TAGA 3000 system announced by Minister George R. McCague in the Ontario Legislature, Environment Ontario will acquire the most advanced mobile monitoring instrument available in the world today for the detection and the qualitative and quantitative measurement of even the most complex organic compounds.

The TAGA (Trace Atmospheric Gas Analyser) system has been developed, patented, and is built in Canada by SCIEX Inc., a wholly Canadian company formed by three University of Toronto professors and a Canadian marketing expert.

"The system is far ahead of any mobile chemical analytic equipment for measuring air contaminants used anywhere in the world and has created since its introduction unusual interest in the scientific community, especially in the US," said Tom W. Cross, assistant director of the Air Resources Branch, explaining the new acquisition.

It identifies and counts chemical components by using a conventional mass spectrometer. The capacity of this instrument, however, has been enhanced a thousand-fold by the incorporation of micro-computer governed equipment able to selectively ionize molecules of the investigated material. This allows a continuous identification and quantification of selected chemicals in milliseconds. Its unique effectiveness is due to its ability to monitor contaminants in "real time" by sampling directly into the instrument from the ambient atmosphere without additional sample preparation.

The Ministry's mobile II air van used by the Air Resources Branch now can detect and monitor the presence of eight to ten pollutants in the air with a precision of parts per million. The new equipment will be able to identify selectively and continuously hundreds of organic chemicals found in the air or in liquids.

(continued pg. 2)

Budget: $283 million

78/79 environment policy firm but realistic-McCague

Outlining Environment Ontario spending estimates for the fiscal year 1978-79 before a committee of the Legislature March 28, Environment Minister George R. McCague committed the Ministry to a "firm but realistic" approach to environmental regulation.

"We do not intend to retreat from the high standards which we have established in Ontario," said Mr. McCague "but we intend to temper our policies with common sense and to take into account the economic factors which affect us today, especially our high levels of unemployment and the competitive position of Ontario industry both at home and abroad."

...no retreat from high standards...

Citing an example of this approach, Mr. McCague referred to recently announced new measures affecting carbonated soft drink containers, to amend a regulation calling for a ban on all non-refillable glass soft-drink containers, originally scheduled to go into effect April 1, 1978.

He said the amendment, permitting the continued sale of soft drinks in non-refillable bottles in three designated sizes, will avert what the industry has estimated to be significant unemployment in the glass container industry.

However, Mr. McCague said as a result of the amendment and the industry program, the Ministry anticipates a marked reduction in solid waste caused by throwaway containers and a steady increase in the use of more environmentally-acceptable refillable bottles.

"We'll get the job done without undue displacement in the work force and we'll continue to apply this regulatory philosophy with minimal economic side effects," he said.

Before the estimates committee of the resources development secretariat, Mr. McCague outlined a Ministry of the Environment spending program of about $283 million in 1978-79, including these highlights:

The Ministry of the Environment's capital construction program for sewage and water works construction has increased in total dollars from $67 million in 1972 to $185 million in 1978-79.

About $18 million will be made available for up-front grants to municipalities according to a new direct grant plan which will extend provincial funding to municipally-owned sewage and water facilities.

In the past, only joint provincial-municipal and provincially-owned projects have qualified for assistance.

Mr. McCague told the estimates committee the Ministry will proceed with all projects for which agreements have been signed and would continue in the role of safe-guarding human health and the environment by providing laboratory and technical services to monitor water quality and to ensure efficient plant operation.

(continued pg. 4)

New assistant deputy minister appointed **(see pg 3.)**

Waste separation at source starts in Toronto area

A "Divide and Conquer" program for the separate collection and recycling of household waste is starting in areas of Toronto, Etobicoke, Halton Hills, and in the Town of Aurora, Ontario Minister George R. McCague announced. The program is a joint effort of Environment Ontario and municipal works departments in the involved communities.

"The annual output of solid waste of one person would now fill an 18-storey high garbage can," Mr. McCague explained. "Twenty-five per cent of this can be recycled, if all households co-operate. The 'Divide and Conquer' program involves home separation of [illegible] able materials, fo[illegible] sale to industrial

Householders municipalities have been informed by the Ministry and by their local municipalities of the project. In Toronto and Etobicoke collection of separated materials has started.

In Aurora, householders are asked to deliver separated waste to three conveniently located depots.

"Revenues from the sale of the collected newspapers, glass, and cans to industry will return to the local communities.

"The Ministry is assisting some municipalities in developing equipment and in marketing the collected materials. In all areas householders will be informed by a newsletter [illegible] press

will provide valuable information to increase the opportunities for source separation of materials for recycling, where markets are available. This will not only reduce the demand for landfill, but will also provide savings in energy and resources for the benefit of all."

Inside LEGACY

Project Paper Recovery off to a good start

Jack Donnan, economist with the Environmental Approvals Branch, empties the first load of waste paper collected at the head office into the storage bin for recycling. Bill Davidson, of Browning-Ferris Industries, drove the first truckload to the Resource Recovery Centre for baling. The Project Paper Recycling is administered by Mr. Donnan and the Resource Recovery Branch.

Over 2½ tons of high-grade waste paper valued at about $100 per ton was collected by employees of Environment Ontario's head office at 135 St. Clair Ave. West during the first six weeks of "Project Paper Recycling". The first shipment of the desk-top separated paper was picked up on March 17 and shipped to the Ministry's Resource Recovery Centre in Downsview.

High quality paper is the largest single item of all office waste, and is also the paper most suitable for recycling," explained Jack Donnan, Ministry economist. "Paper manufacturers can use it either as de-inking grade or as pulp substitute."

The type of paper collected at the Ministry's offices in desk top holders consists basically of used office paper, reproduction paper, envelopes, index cards, computer cards and print-outs, bond, and similar products. Each employees has been supplied with a desk-top container manufactured from recycled cardboard. When this container is full, it is emptied into central containers placed on each floor.

Cleaning staff empty floor-containers into a large waste collection bin. From here the paper is transported to the Ministry's Resource Recovery Centre in Dowsview, baled and stored for pick-up.

Project Paper Recycling has been organized by the Ministry's Resource Recycling Centre as a pilot project. Experiences gained during its operation may be later applied to similar projects in Ontario Government offices.

Air quality monitor

(continued from page 1)

Quality and quantity of the identified chemicals are registered on a continuous graph and on magnetic tape for further computer evaluation. Sensitivity of the readings is in the parts per billion or parts per trillion range.

The new TAGA 3000 will be delivered to the Ministry in the fall of this year. Its first use will probaby be the monitoring of PCB in the atmosphere with an immediacy and precision not available before.

The analytical instruments of the new vehicle operate as well in motion as in the stationary mode, and the system will be also used to monitor the movement and changing composition of plumes emitted from industrial stacks and other sources.

Data collection and analysis will be available to Ministry scientists without the delays usually caused by trial runs and the training of personnel on new equipment, as Ministry staff can study the new method on a somewhat simpler prototype, the TAGA 2000, owned by the federal government and available temporarily to Environment Ontario. For an introductory period the new TAGA 3000 instruments will be operated by SCIEX staff – a staff that matches the equipment in its sophistication – even the driver of the new "bus" has a Ph.D. degree.

Fish information now available

Reliable information on contaminants in fish based on more than 30,000 fish samples from 440 Ontario lakes and rivers is now available from Environment Ontario, Minister George R.McCague announced.

Three free books covering Northern Ontario, Southern Ontario and the Great Lakes provide detailed species-by-species and lake-by-lake fish consumption guidelines. A technical manual containing more detail is also available through the Ontario Government book store on 880 Bay Street, Toronto at $5/copy.

In all publications the levels of major contaminants: mercury, mirex, PCB's and DDT are correlated with maximum recommended consumption for that species and size.

It's all one world...

THAMES HAS 95 VARIETIES

Since the introduction of water pollution control measures in England in 1964, 95 species of fish and other aquatic fauna have returned to the Thames River, reports the New Scientist. The most recent returnees identified are the long spined Sea Scorpion, and the Worm Pipefish. Specimen of both species were caught during a routine survey at the West Thurrock power station.

TO FEED OR NOT TO FEED

A lively discussion on the feeding of sewage sludge arose at a fish farming conference recently held in London. Professor Ron Edwards from the University of Wales claimed that farming of fish on domestic sewage sludge could provide an animal product whithout the heavy energy input of intensive livestock farming or trout rearing. Hugh Fish, from the Thames Water Authority, maintained, that sewage sludge is far from sterile and may contain harmful pathogens, minerals, detergent residues and organic chemicals. He would rather extract fat (about 25 per cent) and proteins (about 16 per cent), and process these materials into feeds.

Professor Edward countered that the production of very small species, such as worms that could be fed to fish may be even more profitable. A sewage works serving a population of 100,000 may produce by this detour some 30 tonnes of live fish per year. Hugh Fish agreed, that while the use of fecal wastes for food fish may encounter consumer resistance, the fish fed worms reared on sludge may be used for the production of fish meal for livestock feed.

ARE SHORTER STACKS BETTER?

Stacks over 100 meters (300 feet) high seem to disperse pollutants less effectively than shorter ones, found the US National Oceanic and Atmospheric Administration (NOAA). Experiments revealed, that above 100 meters air movement is much more stable than lower down, as variations in wind direction at that height are small. The result is that pollutants falling from this height to the ground are likely to accumulate in greater concentration than would be expected, says NOAA. But how these pollutants can do that, after passing through the more turbulent lower strata, is not explained.

MEASURING OIL DISCHARGES

Oil transport is a one-sided affair. On the return trip seagoing tankers must fill the then empty oiltanks with seawater to remain right-side up, and before taking on another load, this ballast water, containing residue oil, must be discharged. According to some scientists it is this ballast water that contributes significantly to clumps of oil free-floating in the Atlantic, as reported by Heyerdahl and others.

To reduce the effect of the dumping of oil contaminated ballast water, an international limit to such oil discharge was set at 60 litres per mile of ship travel. A British manufacturer, Babcock Controls of Croydon, is now marketing a device that reads the oil content of ballast water in parts per million and combines this reading with the ship's log speed measurement to assure that the discharge remains below the limit. Babcock claims that tankers discharge annually 1.6 million tonnes of oil into the sea. By using their instrument, this could be reduced to 0.3 million tonnes.

FOREST MAY SUPPLY CANADA'S FUEL NEEDS

Energy from forests could provide up to 25 per cent of Canada's primary energy usage by the turn of the century, federal Environment Minister Len Marchand told the faculty and students of Yale Universities School of Forestry and Environmental Studies recently in New Haven, Conn. The wood harvest could be transformed into methanol to be used as an alternative to oil derived fuels in road transport.

The Minister warned his audience, however, that harvesting the forest resources for methanol production poses serious questions about environmental effects. Further studies are required to determine how best to derive energy from the forests without courting ecological disaster.

MIREX IN TEXAS BUT NOT IN CANADA

"We have some 44,000 pounds of it and give it away to everybody who needs it", said James Whitmire, district supervisor for the Texas Department of Agriculture to a reporter of the Houston Chronicle.

What Mr. Whitmire was talking about is a pesticide known as sure death for fire ants, but also containing Mirex suspected to cause cancer in humans and banned by the US federal Environment Protection Agency. In the soil, Mirex also may break down into the very toxic kepone. The use of Mirex was terminated in Ontario in 1970.

Despite these dangers, the pesticide containing Mirex, continues to be used mixed with bait at a rate of two pounds per acre in 60 of 95 ant infested counties in Texas.

ANOPHELES MARCHES ON

Many tropical countries which thought they had conquered malaria are now facing a frightening resurgence of the disease, reports the World Health Organisation (WHO). India, where malaria cases were reduced from 100 million in 1952 to only 60,000 in 1962, is now again registering 6 million cases. In Ceylon, where the annual number of cases was reduced to 25, now over two million people are afflicted by the disease. In Central America, the number of cases has doubled from 1974 to 1975 in Nicaragua and quadrupled in Honduras.

The new spread of the disease is not due to a reduction of the application of pesticides, but to a fast spreading immunity of the anopheles mosquito to the various chemicals, including DDT, used to control it. In many cases it was found that the immunity of the insects is not only limited to types of chemical pesticides, but even to non-chemical insect development inhibitors such as juvenile hormones and mimics. One strain of Anopheles has even learned to leave the house after biting a human victim instead of resting on the insecticide sprayed walls. In addition, the most dangerous form of malaria is showing increasing resistance to chloroquine, the standard drug used against it.

Environmental education on the move

This year for the third summer, students hired and trained by the Ministry of the Environment will again travel the roads of Ontario conducting and promoting environmental studies in schools, children's camps and provincial parks.

The purpose of the program is threefold: 1) to foster a clear awareness of and concern about the environment; 2) to encourage an appreciation of the out-of-doors among young people; and 3) to motivate individuals of all ages to actively participate in environmental improvement and protection.

Beginning in early June, the two teams of students will start off across Ontario – one team in Southern and the other in Northern Ontario. They will work primarily in the following locations:

SCHOOLS: During the month of June our mobile education teams will visit elementary schools at the request of the principal, to work with the students and teachers on a variety of environmental studies and activities, selected by the teacher from page E2. Films are also available.

Note: To ensure that each student derives maximum benefit from the activity, the groups must be limited to half a class at a time.

The schools are asked to provide the members of the team with lunch.

CAMPS: Throughout July and the first two weeks of August, the Ministry's educational teams will travel to children's day and residential camps, offering a variety of environmental programs depending on the location and camp facilities. Two types of sessions are available: 1) studies for campers and 2) instructional techniques for counsellors interested in carrying out environmental activities. All groups should be limited to fifteen with at least one counsellor, accompanying the campers during their session.

Camps are asked to provide the teams with meals and overnight accommodation, if required.

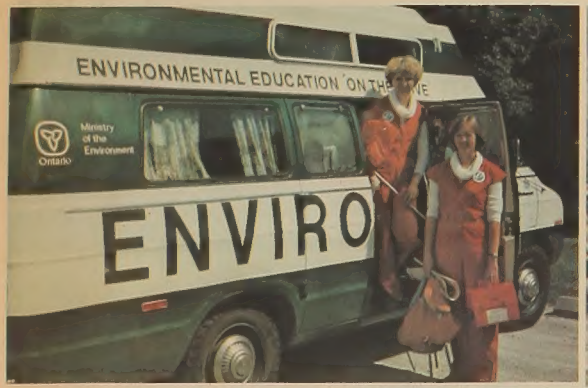
PROVINCIAL PARKS: On Saturday nights, throughout the summer, Environment Ontario's mobile educational teams will be available to show environmental films and cartoons in provincial parks and campgrounds. They will also be happy to answer questions about the Ministry. Campgrounds must provide movie screen, overnight camping space, and meals, if possible.

To arrange for the mobile educational team to visit your school, camp or campground, please contact:

The Co-ordinator,
Summer Environmental Education Program,
Information Services Branch,
Ministry of the Environment
135 St. Clair Avenue West,
Toronto, Ontario
M4V 1P5

The Environment Show

Ministry of the Environment
Ontario



Place:

Date: **Time:**

Details:

Learning the environmental way

Environment Ontario's environmental education teams are available throughout June, July, and August to run the following activities and studies in schools and children's camps around the Province.

Please see page E1 to arrange for bookings.

Soil: An introduction to the various types and properties of soil. This study is designed to promote a greater understanding of the importance of soil as a life supporting system. It can be adapted to children of all levels. Time: 1-1½ hours.

Lawn/Field: By exploring a given area of lawn or field for plant and animal life and by taking the physical environment into account, children are made aware of the interactions occurring within this natural setting. Time: 1 hour.

Environmental Games: Youngsters learn about animal habits, survival techniques, population growth and man's impact on the environment through games and role-playing. Time: 1 hour. (it could also be an entire evening program.)

Insect Study: Children are introduced to the various types of insects in the area, their homes and how to catch and observe them. (Collections are not encouraged.) This study should generate inquisitiveness and inspire youngsters to undertake further investigations. Time: 1½ hours.

Equipment Building: Youngsters are taught how to make simple environmental sampling equipment for insect and aquatic habitat studies and are instructed as to their use. Schools and camps are requested to provide the inexpensive materials for this study. Time: 1 hour.

Aquatic Habitat: By examining the plant and animal life found within a body of water, children will study the inter-relationships existing in the aquatic community and develop an appreciation of nature's handicraft. Time: 2 hours.

Nature Walks: The basic goal of this activity is to encourage youngsters to greater observations, insights and appreciation of the world around us. One of the major concepts is that there is nothing that does not change. Time: 1 hour.

Acclimatization: A sensory approach is used to help the campers develop a greater awareness of the environment. The senses — taste, smell, touch, sight and sound — are used individually and collectively to increase the campers "feel" of the out-of-doors. Time: 1 hour.

Litter: Through games, art activities and films youngsters are taught the problems associated with waste management and litter and the necessity of respecting their environment. Time: 1 hour.

Art and Language Skills: Children are encouraged to appreciate and enjoy nature through sessions on sketching, writing and talking about the environment. Time: 1 hour.

Counsellor Workshop: The detection technique of conducting environmental studies is introduced; several campsite investigations are studied; films are viewed; and assistance is given in developing individual environmental programs. Time: 3 hours.

McCague: Throwaway society must change habits

Environment Minister George McCague outlined Environment Ontario's waste management objectives to the Association of Counties and Regions of Ontario's April seminar at Toronto's Airport Hilton Hotel.

Mr. McCague told the assembled regional chairmen, reeves and municipal councillors that the Ministry needed their assistance in developing solutions to current issues of waste management in urban areas. "We find the problems of waste management now escalating as we run out of suitable landfill sites. The problem is compounded by the habits of our 'throwaway' society and the increasing generation of industrial wastes, including many toxic substances", he said.

"In 1974, for example, the latest year for which I have figures, municipalities spent $70 million for the management and disposal of solid waste in southern Ontario. An estimated five million tons were generated by a population of seven million

...5,000,000 tons of waste from 7,000,000 people...

at a generation rate of four pounds of garbage per capita per day. Assuming an annual increase of four per cent, solid waste would expand to 16 million tons in the next 20 years.

"Equally important as the cost of waste disposal is the real waste of resources and energy this garbage represents. We throw away more than 2-¼ million tons of paper and ½ million tons of metal every year. It's also significant that 2- 1/3 million tons of this waste is packaging material". Mr. McCague told the municipal officials that a solution to this shared problem requires a number of approaches which must be pursued in parallel.

The Minister named the following approaches:

1. A reduction in the quantity and types of material produced which are likely to result in waste. The ministry and the waste management advisory board have initiated dialogue with the packaging, soft drink, and other related industries and groups.

2. We must inspire new attitudes among producers and consumers to emphasize the conservation of materials and energy;

3. We need to persuade householders to separate certain elements of waste at source, and develop systems to take advantage of this home separation process;

4. There is a need for the establishment of a network of central resource recovery plants;

5. And, finally, we must promote the use of reclaimed materials, and develop new uses and markets for these materials.

The objectives of the Ministry's waste recovery program can be achieved by various means, Minister McCague said.

"We are continuing to assist municipalities in area waste management planning. We offer a 50 per cent subsidy for the construction of resource recovery plants with 40-year financing of the balance of capital costs. This financing, we feel, makes it possible for a municipality to invest in a $15 million plant to reclaim metal, paper, cardboard, and fuel from a 1,000 ton per day plant.

"Municipalities have been slow in responding to this offer so far. No doubt some of you have been concerned, quite legitimately, about the high cost of facilities, the higher operating costs as compared to landfill, and about the uncertainties which still exist in technology and markets.

"Recycling and reclamation will ultimately depend on reliable markets for the reclaimed

...we offer 50% subsidies and 40 year financing...

goods. For this reason, my ministry is attempting to establish and to develop these markets and the viability of reclamation at our new centre for resource recovery in Downsview, which will be in full operation by June.

"This $14.5 million facility in Downsview is a functioning resource recovery plant capable of handling up to 600 tons of refuse on a two-shift a day basis. Equally important, it is the laboratory in which various technologies and methods are tested and proven with the aim of producing a wide range of separated materials and fuels for market development.

"This plant has been functioning efficiently since last March, as a transfer station for Metro Toronto garbage, handling as much as 900 tons a day. Furthermore, we are already finding new markets for separately collected paper and cardboard delivered to the plant.

"Separated paper and light combustible wastes processed through the plant will be used this year as a fuel enrichment in

...Downsview plant in operation in June...

the Canada Cement LaFarge kilns in Woodstock replacing up to 40 per cent of the coal normally used.

"If this experiment succeeds, we will have a good, stable market for refuse-derived fuel. The industry has five plants throughout southern Ontario, all close to urban areas – which would comprise a potential market for refuse-derived fuel from other municipalities.

"Another promising market for reclaimed paper from our resource recovery plant is its potential for use as insulation material.

"We are also getting a good response from the secondary metals industry and we feel that there will be a reliable market for reclaimed steel, particularly from foundry operations.

"Ultimately, and most importantly, we hope in the near future to be able to place all of these new methods and technologies of resource recovery into your hands for the benefit of Ontario municipalities.

Mr. McCague expressed the Ministry's concern about leachate control, since most existing landfill sites were built without the stringent technical and hydrogeology studies which are currently required, and its concern about the disposal of liquid industrial wastes.

"We are having serious discussions with industry on this issue, since the Ontario government has advocated for some time that the process of safe disposal of liquid industrial wastes must be mainly the responsibility of the private sector. We believe that waste disposal is part of the cost of doing business and industry should not, therefore, expect the government alone to solve its problems.

"We have warned manufacturers that if government has to provide and operate such disposal facilities, they can expect the costs of disposal to be considerably higher than private facilities. This would also be likely to create unfair competition with the private sector.

"To date, unfortunately, industry's choice has been cheap disposal at landfill sites rather than a more suitable long-term method of treatment or destruction of industrial liquid wastes. This has made it difficult for private disposal firms to operate at capacity and at a reasonable profit.

...Watts from Waste in final design stage...

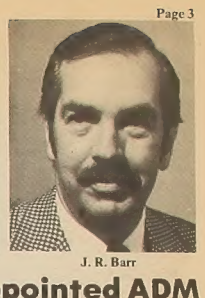
"We believe that the establishment and operation of such facilities are the responsibility of industry. The role of government should be mainly regulation and enforcement. We are prepared to assist in research with respect to the utilization of liquid waste, but we expect a much more concerted effort from industry in this regard, since industry will reap the main benefits from any new methods of utilization," he said.

Mr. McCague outlined the Ministry's way-bill regulations with respect to the disposal of industrial wastes, and the hazardous substances program which has been established within the Ministry.

The objective of this latter program is to pinpoint substances which could potentially cause problems similar to those of PCBs and mercury, and to make recommendations for adequate controls on the release of these materials to the environment.

"Waste disposal becomes immediately suspect as a prime vehicle by which these types of substances can be released to the environment. We can anticipate, therefore, that controls on these substances will require that they be treated and disposed of in a safe, approved manner. This further emphasizes the urgent need for adequate disposal facilities in the Province", he stated.

W. Bidell



J. R. Barr

W. Biddell appointed ADM

K. H. Sharpe, deputy minister, Ontario Ministry of the Environment, has announced the appointment of William Bidell to the position of assistant deputy minister, regional operations and laboratories division. Mr. Bidell succeeds J. R. Barr, who has been appointed assistant deputy minister, finance and administration, with the Ontario Ministry of Transportation and Communications.

William (Bill) Bidell comes to Environment Ontario from the Ministry of Transportation and Communications, where he was assistant deputy minister finance and administration, since 1976. He joined the then Department of Highways in 1950 following graduation from the University of Toronto as a civil engineer. In 1971 Mr. Bidell was named executive director of the planning division for the newly created Ministry of Transportation and Communications. He was appointed assistant deputy minister, planning division in 1972 and assistant deputy minister, finance and administration in 1976.

Mr. Barr was born in Wingham, Ont. and joined the then Ontario Department of Health, sanitary engineering division in 1954 as a district engineer after graduation from the University of Toronto. In 1961 he was appointed supervisor of sewage works with the OWRC and became director of the division in 1965. In 1972 he was appointed director of the sanitary engineering branch and in 1973 assistant deputy minister, regional operations and laboratories division.

Experts investigate waste paper market

To help Ontario expand markets and find new uses for wastepaper, a 12-member working group has been appointed by the Ministry of the Environment's Waste Management Advisory Board.

Chairman of the group, Professor Morris Wayman of Chemical Engineering and Forestry at the University of Toronto, said specific aims of the group include studying the current wastepaper business, identifying opportunities to expand and open up new markets for wastepaper and defining measures to increase recycling of wastepaper.

"One of the keys to the future success of resource recovery is the extent to which government and industry co-operate," said Professor Wayman. "Our job is to make economic sense out of the common sense of wastepaper reuse."

The working group on wastepaper includes represenatatives of the paper, publishing and insulation industries, municipal governments, and manufacturers.

Robert Woolvett, Chairman of the Waste Management Advisory Board is an ex-officio member of the Group.

CALENDAR OF EVENTS

May 7 - 10 – American Water Works Association, Ontario Section, annual conference, Ottawa, Ont. – AWWA, 3190 Mavis Rd., Mississauga, Ont. L5C 1T9

May 9 - 11 – International Association for Great Lakes Research, annual conference, University of Windsor, Windsor, Ont. – Dept. of Geography, University of Windsor, Windsor, Ont. N9B 3P4.

May 9 - 11 – Environmental Aspects of Industrial Cooling in Northern Climates, conference, Edmonton, Alta. – Mrs. Susan Schock, W. J. Francl & Assoc., 13245 - 146 St., Edmonton, Alta, T5L 4S8.

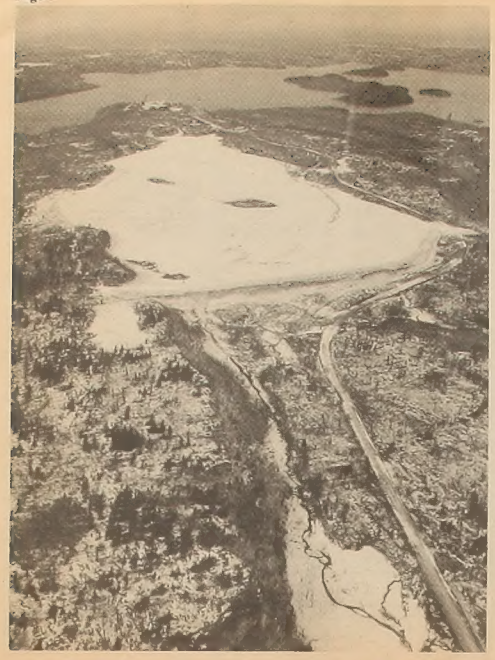
May 14 - 17 – FACE, seventh annual conference, Association Quebecoise des Techniques de L'Eau, Quebec City, Que – Harold Sohier, AQTE, 6065 Sherbrooke St. W., Montreal, Que. H4A 1Y2

May 15 - 17 – Man and His Environment, third international conference, Banff Springs Hotel, Banff, Alta. – Dr. M. F. Mohtadi, Dept. of Chem. Eng., University of Calgary, Calgary, Alta. T2N 1N4

May 18 - 19 – Computer Applications in Hydrotechnical and Municipal Engineering, CSCE specialty conference, Toronto, Ont. – P.O. Box 857, Station "K", Toronto, Ont., M4P 2H2

May 29 - June 1 – Canadian Land Reclamation Association, annual general meeting, Sudbury, Ont. – Sarah B. Lowe, Box 682, Guelph, Ont. N1H 6L3.

May 31 - June 2 – Canadian Pest Control Association, annual meeting, Holiday Inn downtown, Toronto. – A. H. Gartner, PCO Services Ltd., 232 Norseman Street, Toronto, 416-231-7278



In its ongoing study of mine tailings and disposal areas Environment Ontario is using low level oblique aerial photography extensively. The white areas on the photo at left don't show snow, but a tailings disposal area at Quirke Lake. Aerial photos such as this one help to establish a tailings and spill areas inventory. Updated photographs taken at regular intervals show changes in the environment. The photos also reveal sites calling for closer inspection on the ground. In the photo at right a Ministry technician checks the quality of material leaching from an abandoned tailings site.

(photo: Ron Johnson)

78/79 environmental policy firm but realistic

(continued from pg 1)

"The current energy situation has some very important implications that are reflected in the current thrust of our program to develop productive uses for waste material," Mr. McCague told the estimates committee.

He said the Ministry of the Environment is involved in a number of studies of the feasibility of using waste as a fuel source.

The Watts from Waste project, in Metro Toronto,

...develop productive uses for waste...

designed to recover the energy value from about a quarter-million tons of garbage each year has reached the final design stage with construction expected to begin this year.

Under agreement between Ontario Hydro and Metro Toronto, Environment Ontario will provide the cost of alterations at the Lakeview Generating Station and help pay the associated engineering and land acquisition costs.

The processed waste material for this and a similar project studying the full-scale use of refuse-derived fuel at Canada Cement LaFarge in Woodstock is provided by the Ministry's experimental plant for resource recovery in Downsview. In partial operation during the past year, the facility will become fully-operational this spring.

In 1978-79, the Ministry will publicize the results of tests for contaminants in fish from approximately 440 lakes and rivers which have been sampled and analyzed to date.

Mr. McCague said service to the public will also continue to be improved in the area of environmental approvals. The normal turn-around time for the review, inspection, and processing of these municipal and industrial approvals, he told the estimates committee, has been reduced in the past year by about 50 per cent.

The Ministry of the Environ-

...fish tests from 440 lakes...

ment's mobile air testing capability will be increased in the coming year by the acquisition of a new, sophisticated unit.

The unit, developed and manufactured in Canada is designed to provide instantaneous on-the-spot analysis of a wide range of contaminants including PCBs and hydrogen fluoride.

Mr. McCague said the ultrasenstive unit will combat a traditional time problem in providing data quickly in emergencies.

Research

In addition to normal research funding, Environment Ontario is involved in nine projects with the Provincial Lottery for health research and health-related environmental projects.

These include the testing of five substitutes for PCBs now being studied by Ontario Hydro. The program is underway at Thunder Bay's Lakehead University where staff are measuring levels of toxicity and bioaccumulation in fish of possible PCB replacement formulations.

New procedure set for asbestos analysis

A recommended procedure for the measurement of asbestos in water has been established by a committee of representatives of Environment Ontario, the Ontario Research Foundation, Health and Welfare Canada, Environment Canada and McMaster and Lakehead Universities.

"Until now there has been no widely-agreed-upon methodology for the measuring of asbestos levels in the aquatic environment," said Gerry Ronan, director of the Ministry's laboratory services branch. "This has led to considerable confusion as different environmental labs would report widely varying levels of asbestos in the same study areas."

Committee chairman, Art Rayner, of the Ministry of the Environment said a similar analytical procedure has also recently been proposed by the Environmental Protection Agency in the United States. The new method is currently being used in a survey of asbestos in Ontario water supplies.

At present, asbestos level guidelines apply only to air. A report on the best method for measuring levels of asbestos in air is expected later this year.

71 Conservation Centres open in Ontario towns

Information on and active cooperation in the organisation of recycling, waste management, composting, organic gardening and many other ways of energy conservation is made available through 71 Community Conservation Centres opening as "storefront operations" in towns and cities throughout Ontario.

The Centres have been funded by the federal Department of Energy, Mines and Resources with the aim to create awareness of the importance of energy conservation, provide information on various conservation measures and encourage a less energy consuming lifestyle. Information about your nearest Community Conservation Centre is available from: Regional Resource Centre, 11 Front St. W, Room 618, Toronto, M5J 1A4 or 428 Victoria Ave., Thunder Bay "F", Ontario.

Ministry of the Environment
Ontario

Hon. George R. McCague, Minister
K. H. Sharpe, Deputy Minister

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